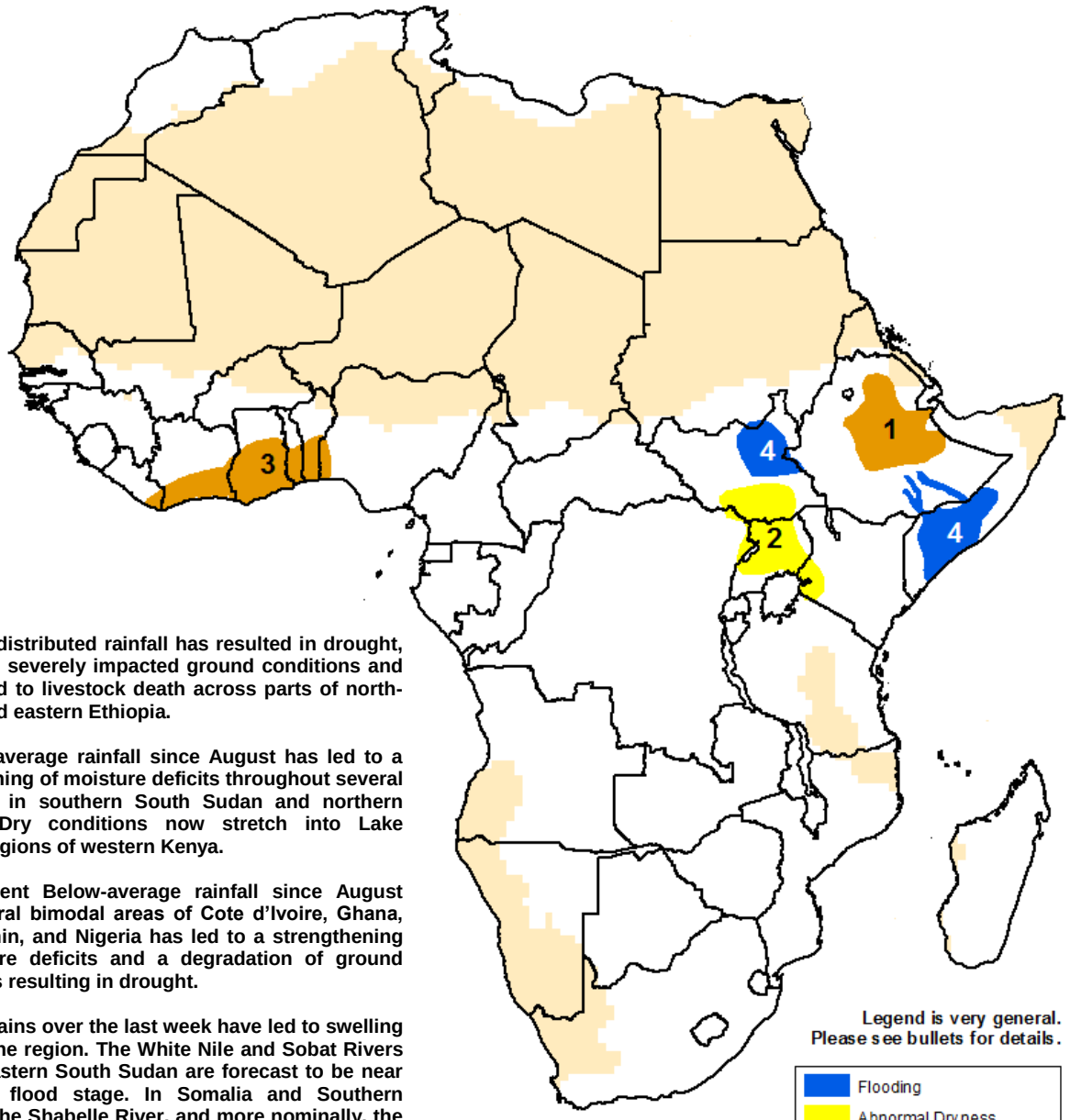
Climate Prediction Center's Africa Hazards Outlook
October 22 – October 28, 2015

- **Heavy rains have continued for far western Gulf of Guinea, while much drier conditions prevailed farther east across West Africa.**
- **Heavy rain continues for portions of East Africa raising flooding concerns.**



1) Poorly distributed rainfall has resulted in drought, which has severely impacted ground conditions and already led to livestock death across parts of north-central and eastern Ethiopia.

2) Below-average rainfall since August has led to a strengthening of moisture deficits throughout several provinces in southern South Sudan and northern Uganda. Dry conditions now stretch into Lake Victoria regions of western Kenya.

3) Persistent Below-average rainfall since August over several bimodal areas of Cote d'Ivoire, Ghana, Togo, Benin, and Nigeria has led to a strengthening of moisture deficits and a degradation of ground conditions resulting in drought.

4) Heavy rains over the last week have led to swelling rivers in the region. The White Nile and Sobat Rivers in northeastern South Sudan are forecast to be near or above flood stage. In Somalia and Southern Ethiopia, the Shabelle River, and more nominally, the Jubba River are forecasted to be near or above flood stage as a result of heavy rainfall this past week. Additional forecasted heavy rain threatens to exasperate the situation, adding in the threat for flash flooding.

Drought sets in as second season rains remain below normal for bimodal West Africa.

The persistent pattern of above-normal rains has continued in far western Africa and parts of the Sahel. Conversely, most areas to the east saw a suppression of precipitation. Coastal portions of Senegal Guinea, and Guinea-Bissau received the heaviest rain with totals estimated at greater than 100mm according to satellite estimates (**Figure 1**). Little rain was observed in portions of Togo and Benin and northern portions of Nigeria. More moderate, but still below average, rains fell in southern Nigeria and Ghana. Moderate rains received in bimodal Ghana, Togo, and Benin were not enough to decrease deficits and improve conditions substantially there.

Analysis of satellite derived vegetation health index (VHI) indicates widespread positive vegetation conditions resulting from a persistently wet season (**Figure 2**). The well-defined pattern of high values stretches across the entire Sahel, and even into portions of Ghana, Togo, Benin, and Nigeria. Poor conditions, indicated by low index values, are evident in coastal bimodal regions of the Gulf of Guinea caused by drier-than-normal conditions. The poorest ground conditions, as evidenced by the VHI, reside in local areas of southern Ghana. Convergence of evidence from precipitation estimates and vegetation indices over many weeks have signaled that prolonged dryness is entrenched enough to cause levels of cropping and livestock difficulties which warrant drought. Monsoonal rains have shifted southward into bimodal areas but have been insufficient to alleviate moisture deficits and ensuing concerns.

For the upcoming outlook period, rainfall forecasts suggest suppressed rainfall remains the rule for much of West Africa with the exception of far western regions. Senegal and Guinea should see above normal rainfall. The remainder of the Sahel should see rain diminish as is typical for this time of year due to the southward progression of the ITCZ/ITF. Farther south, rainfall, although widespread, looks to be below normal.

Satellite Estimated Rainfall (mm)
Valid: October 14 – October 20, 2015

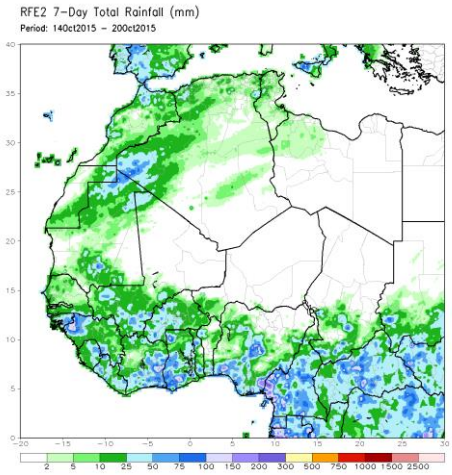


Figure 1: NOAA/CPC

Satellite Estimated Vegetation Health index (VHI)
Valid: October 7 – October 13, 2015

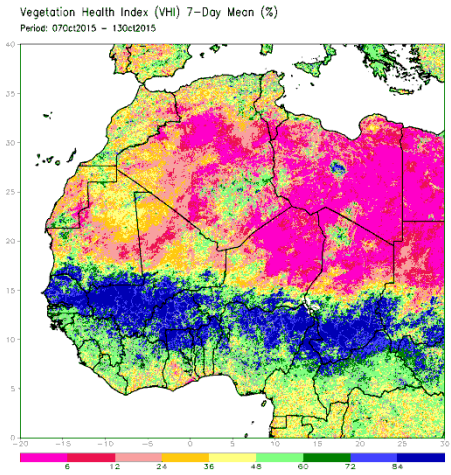


Figure 2: NOAA/NESDIS

Many parts of the Greater Horn received heavy rains last week.

During the recent period, widespread rains were observed across much of East Africa according to satellite estimates. Heavy rainfall (>75mm) was observed in local areas of south-central Somalia (**Figure 3**). Border areas between eastern Sudan and South Sudan picked up heavy rains (>100mm) as well. As a result, river flooding is likely in both regions during the outlook period. Seasonably distributed light-to-moderate rains occurred elsewhere throughout the greater horn. Over the longer term, above-normal rains have led to improved conditions in the second half of the season for Sudan and western Ethiopia. Recent rains only improved long-term deficits slightly in South Sudan and Uganda; many of these areas still lag 20% or more behind their climatological rainfall.

Prolonged, erratic and insufficient rainfall over the past 2 months has led to poor vegetation conditions in southern Ethiopia, South Sudan and Uganda. Poor conditions have spread into southwestern Kenya where concerns about available moisture for cropping and pastoral activities persist as well. During the next 7 days, widespread rains are expected across East Africa according to precipitation forecasts. Above-normal rains, possibly greater than 100mm, are likely for much of the Greater Horn, enhancing flooding concerns in southern Ethiopia and Somalia. Rains are also likely to be heavy in east-central DRC, Rwanda, and Burundi. Rainfall should subside in north-central Ethiopia and Sudan.

Satellite Estimated Rainfall (mm)
Valid: October 14– October 20, 2015

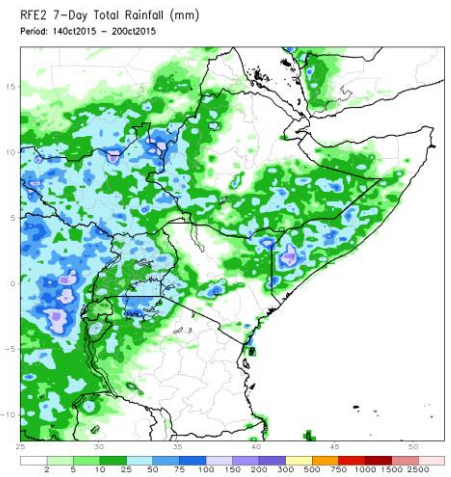


Figure 3: NOAA/CPC

Note: The hazards outlook map on page 1 is based on current weather/climate information and short and medium range weather forecasts (up to 1 week). It assesses their potential impact on crop and pasture conditions. Shaded polygons are added in areas where anomalous conditions have been observed. The boundaries of these polygons are only approximate at this continental scale. This product does not reflect long range seasonal climate forecasts or indicate current or projected food security conditions.

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